

3M™ Scott™ ProPak Sigma Self-Contained Breathing Apparatus



Description

The 3M™ Scott™ ProPak Sigma is a Type 2 open circuit, self-contained, compressed air breathing apparatus. It consists of a back plate, unpadded carrying harness and pneumatic system, containing a cylinder connector, reducer, pressure gauge, whistle and demand valve.

The ProPak Sigma can be configured in a number of different ways with various size single cylinders. There are also a range of variants available including Airline (AC), Split Demand Valve Coupling (SDC) and Y Piece configurations (Y2C).

The ProPak Sigma is used in conjunction with a range of composite or steel cylinders and the choice of Vision 3 or Promask PP facemask.



Applications

The 3M™ Scott™ ProPak Sigma is designed as a marine/ industrial fire-fighting SCBA, but is also suitable for providing respiratory protection in any IDLH (Immediately Dangerous to Health and Life) environment.

Maintenance/cleaning/servicing

Cleaning should only be carried out as specified in the user instructions. Maintenance and servicing must only be performed by trained personnel following the procedures in the service and maintenance manual.



Specification

Approvals

CE marked in accordance with EN 137:2006: Type 2

MED (Shipswheel)

Materials

Pressure reducing valve	Nickel plated brass
Rust tube cylinders	Brass
Reducing valve seat	Polyamide (nylon)
O-rings	Nitrile, silicone, EPDM
Reducing valve springs	Stainless steel
HP pressure gauge	Stainless steel, polycarbonate lens
HP pressure gauge cover	Neoprene
MP air supply hose fittings	Nickel plated brass
Facemask	Neoprene, silicone or procomp
Facemask visor	Polycarbonate
MP air supply hose	EPDM cover, fabric braid reinforcement, EPDM liner
HP air hose	PTCFE liner, stainless steel braiding, estane sleeve
Valve handwheel	Glass filled polyamide/TPE
Harness	Kevlar® blend webbing, PROBAN® covered padding
Backplate	Glass and carbon filled nylon composite
Backpad	Flame retardant cross linked polyolefin closed cell foam covered in a PROBAN® fabric
Cylinder band	Kevlar® and Pyrogard blend webbing, reflective thread
Strap buckles	Stainless steel
Cylinder	Steel or composite
Cylinder valve	Nickel plated brass
Demand valve casing	Glass filled polyamide

Tempest demand valve

Compact positive pressure demand valve featuring servo-assisted, tilting diaphragm mechanism with low inspiratory resistance and responsive dynamic performance, automatic first breath actuation and hands free bypass facility. Components injection moulded from polyamide with rubber seals and diaphragms.

First breath activation	-20 to -30 mbar
Peak flow performance	In excess of 1000 litres/minute
Bypass flow	150 litres/minute nominal
Static positive pressure	1.0 – 4.0 mbar

Reducing valve

First stage pressure reducing valve featuring non-adjustable, spring-loaded piston mechanism and outlet supply protected by pressure relief valve. Valve body and cap machined from nickel-plated brass with stainless steel spring and hose retainer U-clips.

Outlet pressure	
200 bar inlet	5.5 to 9.5 bar
300 bar inlet	6.0 to 11.0 bar
Pressure relief valve protected	Approx. 13.5 bar
Flow restrictor to gauge supply hose	<25 litres minute

Pressure indicator and warning whistle

Bourdon tube type dial indicator

Heat and impact resistant polycarbonate lens

Safety blow-out vent in rear of gauge

Accuracy	+/- 10 bar between 40-300 bar
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Hoses

Stainless steel swivel hose fittings

Medium pressure hose

Maximum working pressure	16 bar
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Minimum burst pressure	80 bar
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High pressure hose

Maximum working pressure	450 bar
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Minimum burst pressure	800 bar
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Weight/dimensions

Weight	Single configuration (less cylinder) 2.6kg Single configuration and facemask (less cylinder) 3.2kg
Length	630mm
Width	285mm
Depth (with 6.0 litre 200 bar cylinder)	215mm